

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF :  
JUNJI TAKENAKA, ET AL. :EXAMINER: John Freeman  
SERIAL NO.: 10/549,696 :  
FILED: September 19, 2005 :GROUP ART UNIT: 1709  
FOR: POLYMERIZATION CURABLE :  
COMPOSITION :

DECLARATION UNDER 37 C.F.R. 1,132

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Sir:

I, Junji Takenaka, am one of the inventors of the present application and have measured the tensile strength of a lens obtained by reworking following Examples of EP 1130038A1.

Experiment

Example 1

0.03 Parts by weight of the chromene 1 (see, page 22 of EP 1130038A1) and 1 part by weight of t-Butylperoxyneodecanoate (perbutyl ND) as the polymerization initiator, were added to 100 parts by weight of polymerizable monomers comprising 5 parts by weight of trimethylolpropane trimethacrylate (TMPT), 77 parts by weight of tetraethylene glycol dimethacrylate (4G), 7 parts by weight of glycidyl methacrylate (GMA), 5 parts by weight of  $\alpha$ -methylstyrene ( $\alpha$ MS), 1 part by weight of  $\alpha$ -methylstyrene dimer (MSD) and 5 parts by weight of polyethylene glycol methacrylate having an average molecular weight of 526 (MAPEG 526), and were mixed to a sufficient degree. This mixture solution was poured into a mold constituted by a glass plate and a gasket of an ethylene/vinyl acetate copolymer, and substantially the whole amount of the above monomer composition was polymerized by cast polymerization. The polymerization was conducted by using an air furnace while gradually raising

the temperature from 30°C to 90°C over a period of 18 hours and maintaining the temperature at 90°C for 2 hours. After the polymerization has been finished, the polymer was removed from the glass mold.

Examples 2 to 7, 10 to 19, 23 to 25, 27, 28, 32, 34 to 37, 45, 47, 50 and 57

Photochromic cured products were obtained in the same manner as in Example 1 but using polymerizable monomer compositions, chromene compounds and other additives shown in Tables 1, 2 and 3 of EP1130038A1.

#### Measurement of tensile strength

The cured products obtained in each of the above Examples were formed into disk-like test samples having a thickness of 2 mm and a diameter of 5 cm, two holes having a diameter of 2 mm were drilled on a line which is the diameter of each test sample with points 4 mm away from the periphery as the centers, two stainless steel rods having a diameter of 1.6 mm were inserted into the two holes and fixed to upper and lower chucks of a tensile tester while they extended through the holes, and the tensile strength of the test sample was measured by pulling at a rate of 5 mm/min. This measurement was made on 7 samples and the average value of the measurement data excluding those of two samples showing the largest and smallest measurement values was obtained.

#### Results

The obtained tensile strength values of each of the cured products were shown in the following table.

Ex. No.	1	2	3	4	5	6	7	10	11	12	13	14	15	16	17	18	19
Tensile Strength (kgf)	16	10	6	14	11	8	5	10	16	11	15	9	13	10	8	7	10

Ex. No.	23	24	25	27	28	32	34	35	36	37	45	47	50	57
Tensile Strength (kgf)	12	12	12	15	10	15	17	13	10	11	11	10	10	14

None of the cured products of Examples in EP 1130038A1 has a tensile strength of 20 kgf or more.

The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Further declarant saith not.

Junji Takenaka  
Signature

Feb. 5th. 2009  
Date